



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Xiong Zhang et al.

Docket No. 61472-0269224

Serial No.: 09/700,236

Group Art Unit: 1765

Filing Date: May 9, 2001

Examiner: Song, Matthew J.

For: **CRYSTAL GROWTH METHOD FOR GROUP-III NITRIDE AND RELATED COMPOUND SEMICONDUCTORS**

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**AMENDMENT**

MAIL STOP AMENDMENT - NO FEE

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

This paper is submitted in response to the Office Action mailed March 18, 2003. Examiner Matthew J. Song re-started the reply period for the Office Action on May 9, 2003, because the Rezeghi reference was not fully identified in the March 18 Office Action.

**In The Claims**

Please amend the claims as follows:

1        1. (Currently amended) A crystal growth method for the group-III nitride compound semiconductors, comprising:

3              forming a MOCVD-grown periodic or non-periodic inactive intermediate multi-layered buffer having at least three layers with each layer having a thickness in the range from 5 2 nm to 6 nm on a substrate at a first temperature in which the layers alternate between at least 6 two types of compound semiconductors A and B different from each other in lattice constant, 7 energy band gap, layer thickness, and composition; and

8              forming a MOCVD-grown layer of a group-III nitride compound semiconductor 9 on the formed inactive intermediate multi-layered buffer, wherein said layer of a group-III nitride 10 is formed at a temperature higher than said first temperature.

1        2. (Previously amended) A crystal growth method according to claim 1, further 2 comprising doping a n- or p-type in said group-III nitride compound semiconductor.